

DETAILED ACTION

Claims 1 – 5, 7 – 9 and 11 – 17 are allowed in this Office Action (Renumber as 1-15).

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Raymond A. DiPerna on 3/8/2011 and 3/11/2011.

The application has been amended as follows:

Claims 1 – 3, 5, 7 – 9 and 13 – 17 are currently amended below:

1. (Currently Amended) A computer system comprising:
a first storage unit (40), storing an OS program, an application program, and data;
a memory (20), for respectively spreading, as necessary, the OS program, an application program, and data stored in the first storage unit;
a program execution unit (10), performing spread onto the memory and execution of the OS program when provided with an instruction of starting up the system, performing spread onto the memory and execution of a specific application program for which a startup instruction is provided under management of the OS

program spread on the memory, and performing, as necessary, a process of preparing new data on the memory or modifying existing data on the memory; and

 a spreading and storing unit (30), executing, based on an instruction of a program being executed by the program execution unit, a spreading process of spreading data, stored in the first storage unit, onto the memory and a storing process of storing data spread on the memory into the first storage unit;

 the computer system further comprising:

 a second storage unit (70) for storing backup data;
 an application registration unit (50), registering one or a plurality of application programs based on an instruction of an operator; and

 a backup management unit (60), monitoring operations of the spreading and storing unit and performing, when the spreading and storing unit executes the storing process of storing specific data, spread on the memory, into the first storage unit, a first process of judging whether or not the storing process is based on an instruction of an application program that has been registered in the application registration unit and a second process of redundantly storing a copy of the specific data into the second storage unit as backup data, said second process being performed only when a positive result is obtained in said first process.

wherein

the second storage unit (70) is arranged from a plurality of data storage devices (71, 72, and 73), and

a divided storage processing unit (80), being connected to the plurality of data storage devices via a network, performing a process of dividing a provided file into a plurality of division files and storing the division files respectively into different data storage devices, and outputting information indicating a method of division and indicating data storage devices that became storage destinations of the respective division files as management information, is furthermore provided.

2. (Currently Amended) A computer system comprising:
 - a first storage unit (40), storing an OS program, an application program, and data;
 - a memory (20), for respectively spreading, as necessary, the OS program, an application program, and data stored in the first storage unit;
 - a program execution unit (10), performing spread onto the memory and execution of the OS program when provided with an instruction of starting up the system, performing spread onto the memory and execution of a specific application program for which a startup instruction is provided under management of the OS program spread on the memory, and performing, as necessary, a process of preparing new data on the memory or modifying existing data on the memory; and
 - a spreading and storing unit (30), executing, based on an instruction of a program being executed by the program execution unit, a spreading process of spreading data, stored in the first storage unit, onto the memory and a storing process of storing data spread on the memory into the first storage unit;

the computer system further comprising:

a second storage unit (70) for storing backup data;

an extension registration unit (55), registering, based on an instruction of an operator, one or a plurality of extensions among file name extensions associated with application programs; and

a backup management unit (60), monitoring operations of the spreading and storing unit and performing, when the spreading and storing unit executes the storing process of storing specific data, spread on the memory, into the first storage unit, a first process of judging whether or not the specific data has a file name including an extension registered in the extension registration unit and a second process of redundantly storing a copy of the specific data into the second storage unit as backup data, said second process being performed only when a positive result is obtained in said first process.

wherein

the second storage unit (70) is arranged from a plurality of data storage devices (71, 72, and 73), and

a divided storage processing unit (80), being connected to the plurality of data storage devices via a network, performing a process of dividing a provided file into a plurality of division files and storing the division files respectively into different data storage devices, and outputting information indicating a method of division and indicating data storage devices that became storage destinations of the respective division files as management information, is furthermore provided.

3. (Currently Amended) A computer system comprising:

a first storage unit (40), storing an OS program, an application program, and data;

a memory (20), for respectively spreading, as necessary, the OS program, an application program, and data stored in the first storage unit;

a program execution unit (10), performing spread onto the memory and execution of the OS program when provided with an instruction of starting up the system, performing spread onto the memory and execution of a specific application program for which a startup instruction is provided under management of the OS program spread on the memory, and performing, as necessary, a process of preparing new data on the memory or modifying existing data on the memory; and

a spreading and storing unit (30), executing, based on an instruction of a program being executed by the program execution unit, a spreading process of spreading data, stored in the first storage unit, onto the memory and a storing process of storing data spread on the memory into the first storage unit;

the computer system further comprising:

a second storage unit (70) for storing backup data;

an application registration unit (50), registering one or a plurality of application programs based on an instruction of an operator;

an extension registration unit (55), registering, based on an instruction of an operator, one or a plurality of extensions among file name extensions associated with application programs; and

a backup management unit (60), monitoring operations of the spreading and storing unit and performing, when the spreading and storing unit executes the storing process of storing specific data, spread on the memory, into the first storage unit, a first process of judging whether or not the storing process is based on an instruction of an application program that has been registered in the application registration unit, a second process of judging whether or not the specific data that has a file name, including an extension registered in the extension registration unit, and a third process of redundantly storing a copy of the specific data into the second storage unit as backup data, said third process being performed only when a positive result is obtained in both of said first process and said second process.

wherein

the second storage unit (70) is arranged from a plurality of data storage devices (71, 72, and 73), and

a divided storage processing unit (80), being connected to the plurality of data storage devices via a network, performing a process of dividing a provided file into a plurality of division files and storing the division files respectively into different data storage devices, and outputting information indicating a method of division and indicating data storage devices that became storage destinations of the respective division files as management information, is furthermore provided.

5. (Currently Amended) The computer system according to Claim 1, wherein:

~~the second storage unit (70) is arranged from a plurality of data storage devices (71, 72, and 73),~~

~~a divided storage processing unit (80), being connected to the plurality of data storage devices via a network, performing a process of dividing a provided file into a plurality of division files and storing the division files respectively into different data storage devices, and outputting information indicating a method of division and indicating data storage devices that became storage destinations of the respective division files as management information, is furthermore provided, and~~

when a process of storing backup data into the second storage unit is performed, a file of the backup data is provided to the divided storage processing unit.

7. (Currently Amended) An automatic data backup method for making data be backed up automatically in a computer system having a function of making a desired application program be executed under management of an OS program, the backup method comprising:

an application registration step for making one or a plurality of application programs, among application programs to be executed, be registered by the computer system based on an instruction of an operator;

an application judgment step for making the computer system judge, when the computer system executes a storing process of storing specific data into a

predetermined storage location, whether or not the storing process is based on an instruction of an application program that has been registered in the application registration step; and

 a backup step for making the computer system redundantly store a copy of the specific data as backup data into a location that differs from said storage location when a positive judgment result is obtained in the application judgment step,

the backup method further comprising

a process of dividing a provided file into a plurality of division files and storing the division files respectively into different data storage devices, and outputting information indicating a method of division and indicating data storage devices that became storage destinations of the respective division files as management information.

8. (Currently Amended) An automatic data backup method for making data be backed up automatically in a computer system having a function of making a desired application program be executed under management of an OS program, the backup method comprising:

 an extension registration step for making one or a plurality of extensions, among file name extensions associated with application programs to be executed, be registered by the computer system based on an instruction of an operator;

 an extension judgment step for making the computer system judge, when the computer system executes a storing process of storing specific data into a

predetermined storage location, whether or not the specific data has a file name including an extension that has been registered in the extension registration step; and a backup step for making the computer system redundantly store a copy of the specific data as backup data into a location that differs from said storage location when a positive judgment result is obtained in the extension judgment step.

the backup method further comprising
a process of dividing a provided file into a plurality of division files and storing the
division files respectively into different data storage devices, and outputting information
indicating a method of division and indicating data storage devices that became storage
destinations of the respective division files as management information.

9. (Currently Amended) An automatic data backup method for making data be backed up automatically in a computer system having a function of making a desired application program be executed under management of an OS program, the backup method comprising:

an application registration step for making one or a plurality of application programs, among application programs to be executed, be registered by the computer system based on an instruction of an operator;

an extension registration step for making one or a plurality of extensions, among file name extensions associated with application programs to be executed, be registered by the computer system based on an instruction of an operator;

an application judgment step for making the computer system judge, when the computer system executes a storing process of storing specific data into a predetermined storage location, whether or not the storing process is based on an instruction of an application program that has been registered in the application registration step;

an extension judgment step for making the computer system judge, when the computer system executes a storing process of storing specific data into a predetermined storage location, whether or not the specific data has a file name including an extension that has been registered in the extension registration step; and

a backup step for making the computer system redundantly store a copy of the specific data as backup data into a location that differs from said storage location when positive judgment results are obtained in both the application judgment step and the extension judgment step.

the backup method further comprising

a process of dividing a provided file into a plurality of division files and storing the division files respectively into different data storage devices, and outputting information indicating a method of division and indicating data storage devices that became storage destinations of the respective division files as management information.

13. (Currently Amended) The computer system according to claim 2, wherein:

~~the second storage unit (70) is arranged from a plurality of data storage devices (71, 72, and 73),~~

~~a divided storage processing unit (80), being connected to a plurality of data storage devices via a network, performing a process of dividing a provided file into a plurality of division files and storing the division files respectively into different data storage devices, and outputting information indicating a method of division and indicating data storage devices that became storage destinations of the respective division files as management information, is furthermore provided, and~~

when a process of storing backup data into the second storage unit is performed, a file of the backup data is provided to the divided storage processing unit.

14. (Currently Amended) The computer system according to claim 3, wherein:

~~the second storage unit (70) is arranged from a plurality of data storage devices (71, 72, and 73),~~

~~a divided storage processing unit (80), being connected to the plurality of data storage devices via a network, performing a process of dividing a provided file into a plurality of division files and storing the division files respectively into different data storage devices, and outputting information indicating a method of division and indicating data storage devices that became storage destinations of the respective division files as management information, is furthermore provided, and~~

when a process of storing backup data into the second storage unit is performed, a file of the backup data is provided to the divided storage processing unit.

15. (Currently Amended) the computer system according to claim 4, wherein:
~~the second storage unit (70) is arranged from a plurality of data storage devices (71, 72, and 73),~~
~~a divided storage processing unit (80), being connected to the plurality of data storage devices via a network, performing a processing of dividing a provided file into a plurality of division files and storing the division files respectively into different data storage devices, and outputting information indicating a method of division and indicating data storage devices that became storage destinations of the respective division files as management information, is further provided, and~~

when a process of storing backup data into the second storage unit is performed, a file of the backup data is provided to the divided storage processing unit.

16. (Currently Amended) The computer system according to claim 11, wherein:
~~the second storage unit (70) is arranged from a plurality of data storage devices (71, 72, and 73),~~
~~a divided storage processing unit (80), being connected to the plurality of data storage devices via a network performing a process of dividing a provided file into a plurality of division files and storing the division files respectively into different data storage devices, and outputting information indicating a method of division and~~

~~indicating data storage devices that became storage destinations of the respective division files as management information, is furthermore provided, and~~

when a process of storing backup data into the second storage unit is performed, a file of the backup data is provided to the divided storage processing unit.

17. (Currently Amended) The computer system according to claim 12, wherein:

~~the second storage unit (70) is arranged from a plurality of data storage devices (71, 72, and 73),~~

~~a divided storage processing unit (80), being connected to the plurality of data storage devices via a network, performing a process of dividing a provided file into a plurality of division files and storing the division files respectively into different data storage devices, and outputting information indicating a method of division and indicating data storage devices that became storage destinations of the respective division files as management information, is furthermore provided, and~~

when a process of storing backup data ~~int~~ into the second storage unit is performed, a file of the backup data is provided to the divided storage processing unit.

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance:

The present application has been thoroughly reviewed. Upon searching a variety of databases, the examiner respectfully submits that claims 1 – 5, 7 – 9 and 11 – 17 are allowed in light of the prior arts of made record that

combination of McBride (U.S. Publication Number 2002/0087588), Hugard (U.S. Patent Number 5,745,669) and Yano (U.S. Publication Number 2002/0138504) fail to teach that a divided storage processing unit (80), being connected to the plurality of data storage devices via a network, performing a process of dividing a provided file into a plurality of division files and storing the division files respectively into different data storage devices, and outputting information indicating a method of division and indicating data storage devices that became storage destinations of the respective division files as management information (for claims 1 – 3).

combination of McBride (U.S. Publication Number 2002/0087588), Hugard (U.S. Patent Number 5,745,669) and Yano (U.S. Publication Number 2002/0138504) fail to teach that a process of dividing a provided file into a plurality of division files and storing the division files respectively into different data storage devices, and outputting information indicating a method of division and indicating data storage devices that became storage destinations of the respective division files as management information (for claims 7 – 9).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHONG NGUYEN whose telephone number is (571)270-1766. The examiner can normally be reached on Monday-Friday, 8:30am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on 571-272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Examiner, Art Unit 2162
March 11, 2011

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